

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/663,497A  
Source: JEW  
Date Processed by STIC: 3-17-06

***ENTERED***



IFWO

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/663,497A

DATE: 03/17/2006

TIME: 13:42:16

Input Set : D:\seqlist.txt  
 Output Set: N:\CRF4\03172006\J663497A.raw

```

4 <110> APPLICANT: Dale Umetsu
5      Rosemarie DeKruyff
6      Jennifer McIntire
7      Gordon Freeman
9 <120> TITLE OF INVENTION: T CELL REGULATORY GENES ASSOCIATED WITH
10     IMMUNE DISEASE
12 <130> FILE REFERENCE: STAN-235CIP
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/663,497A
C--> 14 <141> CURRENT FILING DATE: 2003-09-15
14 <150> PRIOR APPLICATION NUMBER: 60/302,344
15 <151> PRIOR FILING DATE: 2001-06-29
17 <150> PRIOR APPLICATION NUMBER: 10/188,012
18 <151> PRIOR FILING DATE: 2002-07-01
20 <160> NUMBER OF SEQ ID NOS: 53
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 305
26 <212> TYPE: PRT
27 <213> ORGANISM: M. musculus
29 <220> FEATURE:
30 <221> NAME/KEY: VARIANT
31 <222> LOCATION: (1)...(305)
32 <223> OTHER INFORMATION: TIM-1 BALB/c allele
34 <400> SEQUENCE: 1
35 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Leu Pro
36   1           5           10          15
37 Gly Thr Val Asp Ser Tyr Val Glu Val Lys Gly Val Val Gly His Pro
38   20          25          30
39 Val Thr Leu Pro Cys Thr Tyr Ser Thr Tyr Arg Gly Ile Thr Thr Thr
40   35          40          45
41 Cys Trp Gly Arg Gly Gln Cys Pro Ser Ser Ala Cys Gln Asn Thr Leu
42   50          55          60
43 Ile Trp Thr Asn Gly His Arg Val Thr Tyr Gln Lys Ser Ser Arg Tyr
44   65          70          75          80
45 Asn Leu Lys Gly His Ile Ser Glu Gly Asp Val Ser Leu Thr Ile Glu
46   85          90          95
47 Asn Ser Val Glu Ser Asp Ser Gly Leu Tyr Cys Cys Arg Val Glu Ile
48   100         105         110
49 Pro Gly Trp Phe Asn Asp Gln Lys Val Thr Phe Ser Leu Gln Val Lys
50   115         120         125
51 Pro Glu Ile Pro Thr Arg Pro Pro Thr Arg Pro Thr Thr Arg Pro
52   130         135         140
53 Thr Ala Thr Gly Arg Pro Thr Thr Ile Ser Thr Arg Ser Thr His Val

```

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54	145	150	155	160
55	Pro Thr Ser Ile Arg Val Ser Thr Ser Thr Pro Pro Thr Ser Thr His			
56	165	170	175	
57	Thr Trp Thr His Lys Pro Glu Pro Thr Thr Phe Cys Pro His Glu Thr			
58	180	185	190	
59	Thr Ala Glu Val Thr Gly Ile Pro Ser His Thr Pro Thr Asp Trp Asn			
60	195	200	205	
61	Gly Thr Val Thr Ser Ser Gly Asp Thr Trp Ser Asn His Thr Glu Ala			
62	210	215	220	
63	Ile Pro Pro Gly Lys Pro Gln Lys Asn Pro Thr Lys Gly Phe Tyr Val			
64	225	230	235	240
65	Gly Ile Cys Ile Ala Ala Leu Leu Leu Leu Leu Val Ser Thr Val			
66	245	250	255	
67	Ala Ile Thr Arg Tyr Ile Leu Met Lys Arg Lys Ser Ala Ser Leu Ser			
68	260	265	270	
69	Val Val Ala Phe Arg Val Ser Lys Ile Glu Ala Leu Gln Asn Ala Ala			
70	275	280	285	
71	Val Val His Ser Arg Ala Glu Asp Asn Ile Tyr Ile Val Glu Asp Arg			
72	290	295	300	

73 Pro

74 305

77 <210> SEQ ID NO: 2

78 <211> LENGTH: 918

79 <212> TYPE: DNA

80 <213> ORGANISM: Mus musculus

82 <400> SEQUENCE: 2

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84	tcttatgtgg aagtaaaggg ggttagtggtt caccctgtca cacttccatg tacttactca	120
85	acatatcgta gaatcacaaac gacatgttgg ggccgagggc aatgcccata ttctgtttgt	180
86	caaaaatacac ttatggac caatggacat cgtgtcacct atcagaagag cagtcggta	240
87	aacttaaagg ggcataatttc agaaggagat gtgtccttga cgatagagaa ctctgttgag	300
88	agtgcacagt gtctgtattt ttgtcgagtg gagattcctg gatggttta tgatcagaaaa	360
89	gtgacctttt cattgcaagt taaaccagag attccacac gtcctccaac aagacccaca	420
90	actacaaggc ccacagctac aggaagaccc acgactattt caacaagatc cacacatgt	480
91	ccaaacatcaa tcagagtctc tacctccact cctccaaacat ctacacacac atggactcac	540
92	aaaccagaac ccactacatt ttgtccccat gagacaacag ctgaggtgac aggaatccca	600
93	tccataactc ctacagactg gaatggcact gtgacatcct caggagatac ctggagtaat	660
94	cacactgaag caatccctcc aggaaagccg cagaaaaacc ctactaaggg cttctatgtt	720
95	ggcatctgca tcgcagccct gctgctactg ctcctgtga gcaccgtgac tatcaccagg	780
96	tacatactta taaaaggaa gtcagcatct ctaagcgtgg ttgccttcgg tgtctctaag	840
97	attgaagctt tgcagaacgc agcgggttgtg cattcccgag ctgaagacaa catctacatt	900
98	gttgaagata gaccttga	918

100 <210> SEQ ID NO: 3

101 <211> LENGTH: 282

102 <212> TYPE: PRT

103 <213> ORGANISM: Mus musculus

105 <220> FEATURE:

106 <221> NAME/KEY: VARIANT

107 <222> LOCATION: (1)...(282)

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108 <223> OTHER INFORMATION: TIM-1, C.D2 ES-HBA and DBA/2J allele  
 110 <400> SEQUENCE: 3  
 111 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Pro  
     1                       5                       10                       15  
 112                       5                       10                       15  
 113 Gly Ala Val Asp Ser Tyr Val Glu Val Lys Gly Val Val Gly His Pro  
     14                       20                       25                       30  
 114                       20                       25                       30  
 115 Val Thr Leu Pro Cys Thr Tyr Ser Thr Tyr Arg Gly Ile Thr Thr Thr  
     16                       35                       40                       45  
 116                       35                       40                       45  
 117 Cys Trp Gly Arg Gly Gln Cys Pro Ser Ser Ala Cys Gln Asn Thr Leu  
     18                       50                       55                       60  
 118                       50                       55                       60  
 119 Ile Trp Thr Asn Gly His Arg Val Thr Tyr Gln Lys Ser Ser Arg Tyr  
     20                       65                       70                       75                       80  
 120                       65                       70                       75                       80  
 121 Asn Leu Lys Gly His Ile Ser Glu Gly Asp Val Ser Leu Thr Ile Glu  
     22                       85                       90                       95  
 122                       85                       90                       95  
 123 Asn Ser Val Glu Ser Asp Ser Gly Leu Tyr Cys Cys Arg Val Glu Ile  
     24                       100                       105                       110  
 124                       100                       105                       110  
 125 Pro Gly Trp Phe Asn Asp Gln Lys Val Thr Phe Ser Leu Gln Val Lys  
     26                       115                       120                       125  
 126                       115                       120                       125  
 127 Pro Glu Ile Pro Thr Arg Pro Pro Arg Arg Pro Thr Thr Thr Arg Pro  
     28                       130                       135                       140  
 128                       130                       135                       140  
 129 Thr Ala Thr Gly Arg Pro Thr Thr Ile Ser Thr Arg Ser Thr His Val  
     30                       145                       150                       155                       160  
 130                       145                       150                       155                       160  
 131 Pro Thr Ser Thr Arg Val Ser Thr Ser Thr Pro Pro Thr Ser Thr His  
     32                       165                       170                       175  
 132                       165                       170                       175  
 133 Thr Trp Thr His Lys Pro Asp Trp Asn Gly Thr Val Thr Ser Ser Gly  
     34                       180                       185                       190  
 134                       180                       185                       190  
 135 Asp Thr Trp Ser Asn His Thr Glu Ala Ile Pro Pro Gly Lys Pro Gln  
     36                       195                       200                       205  
 136                       195                       200                       205  
 137 Lys Asn Pro Thr Lys Gly Phe Tyr Val Gly Ile Cys Ile Ala Ala Leu  
     38                       210                       215                       220  
 138                       210                       215                       220  
 139 Leu Leu Leu Leu Val Ser Thr Val Ala Ile Thr Arg Tyr Ile Leu  
     40                       225                       230                       235                       240  
 140                       225                       230                       235                       240  
 141 Met Lys Arg Lys Ser Ala Ser Leu Ser Val Val Ala Phe Arg Val Ser  
     42                       245                       250                       255  
 142                       245                       250                       255  
 143 Lys Ile Glu Ala Leu Gln Asn Ala Ala Val Val His Ser Arg Ala Glu  
     44                       260                       265                       270  
 144                       260                       265                       270  
 145 Asp Asn Ile Tyr Ile Val Glu Asp Arg Pro  
     46                       275                       280  
 146                       275                       280  
 149 <210> SEQ ID NO: 4  
 150 <211> LENGTH: 849  
 151 <212> TYPE: DNA  
 152 <213> ORGANISM: Mus musculus  
 154 <400> SEQUENCE: 4  
 155 atgaatcaga ttcaagtctt catttcaggg ctcatactgc ttctcccagg cgctgtggat 60  
 156 tcttatgtgg aagtaaaggg ggtgggtggg caccctgtca cacttccatg tacttactca 120  
 157 acatatcggt gaatcacaac gacatgtttgg ggccgagggc aatgcccatc ttctgcttgt 180  
 158 caaaatacac ttattttggac caatggacat cgtgtcacct atcagaagag cagtcggtagc 240  
 159 aacttaaagg ggcataatttc agaaggagat gtgtccttga cgatagagaa ctctgttgag 300  
 160 agtgacagtg gtctgttatttgg gagattccttgc gatggttaa tgatcagaaa 360

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161 gtgacctttt cattgcaagt taaaccagag attcccacac gtcctccaag aagaccacaca 420  
 162 actacaaggc ccacagctac aggaagaccc acgactattt caacaagatc cacacatgtac 480  
 163 ccaacatcaa ccagagtctc tacctccact cctccaacat ctacacacac atggactcac 540  
 164 aaaccagact ggaatggcac tgtgacatcc tcagagata cctggagata tcacactgaa 600  
 165 gcaatccctc cagggaaagcc gcagaaaaac cctactaagg gcttctatgt tggcatctgc 660  
 166 atcgcagccc tgctgtaact gtccttggt agcaccgtgg ctatcaccag gtacataactt 720  
 167 atgaaaagga agtcagcattc tctaagcgtg gttgccttcc gttgctctaa gattgaagct 780  
 168 ttgcagaacg cagcggttgt gcattcccgaa gctgaagaca acatctacat tggtaagat 840  
 169 agacccttga 849  
 171 <210> SEQ ID NO: 5  
 172 <211> LENGTH: 305  
 173 <212> TYPE: PRT  
 174 <213> ORGANISM: Mus musculus  
 176 <220> FEATURE:  
 177 <221> NAME/KEY: VARIANT  
 178 <222> LOCATION: (1)...(305)  
 179 <223> OTHER INFORMATION: TIM-2 BALB/c allele  
 181 <400> SEQUENCE: 5  
 182 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Leu Pro  
 183 1 5 10 15  
 184 Gly Ala Val Glu Ser His Thr Ala Val Gln Gly Leu Ala Gly His Pro  
 185 20 25 30  
 186 Val Thr Leu Pro Cys Ile Tyr Ser Thr His Leu Gly Gly Ile Val Pro  
 187 35 40 45  
 188 Met Cys Trp Gly Leu Gly Glu Cys Arg His Ser Tyr Cys Ile Arg Ser  
 189 50 55 60  
 190 Leu Ile Trp Thr Asn Gly Tyr Thr Val Thr His Gln Arg Asn Ser Arg  
 191 65 70 75 80  
 192 Tyr Gln Leu Lys Gly Asn Ile Ser Glu Gly Asn Val Ser Leu Thr Ile  
 193 85 90 95  
 194 Glu Asn Thr Val Val Gly Asp Gly Gly Pro Tyr Cys Cys Val Val Glu  
 195 100 105 110  
 196 Ile Pro Gly Ala Phe His Phe Val Asp Tyr Met Leu Glu Val Lys Pro  
 197 115 120 125  
 198 Glu Ile Ser Thr Ser Pro Pro Thr Arg Pro Thr Ala Thr Gly Arg Pro  
 199 130 135 140  
 200 Thr Thr Ile Ser Thr Arg Ser Thr His Val Pro Thr Ser Thr Arg Val  
 201 145 150 155 160  
 202 Ser Thr Ser Thr Ser Pro Thr Pro Ala His Thr Glu Thr Tyr Lys Pro  
 203 165 170 175  
 204 Glu Ala Thr Thr Phe Tyr Pro Asp Gln Thr Thr Ala Glu Val Thr Glu  
 205 180 185 190  
 206 Thr Leu Pro Ser Thr Pro Ala Asp Trp His Asn Thr Val Thr Ser Ser  
 207 195 200 205  
 208 Asp Asp Pro Trp Asp Asp Asn Thr Glu Val Ile Pro Pro Gln Lys Pro  
 209 210 215 220  
 210 Gln Lys Asn Leu Asn Lys Gly Phe Tyr Val Gly Ile Ser Ile Ala Ala  
 211 225 230 235 240  
 212 Leu Leu Ile Leu Met Leu Leu Ser Thr Met Val Ile Thr Arg Tyr Val

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213	245	250	255
214 Val Met Lys Arg Lys Ser Glu Ser Leu Ser Phe Val Ala Phe Pro Ile			
215	260	265	270
216 Ser Lys Ile Gly Ala Ser Pro Lys Lys Val Val Glu Arg Thr Arg Cys			
217	275	280	285
218 Glu Asp Gln Val Tyr Ile Ile Glu Asp Thr Pro Tyr Pro Glu Glu Glu			
219	290	295	300
220 Ser			
221 305			
224 <210> SEQ ID NO: 6			
225 <211> LENGTH: 958			
226 <212> TYPE: DNA			
227 <213> ORGANISM: Mus musculus			
229 <400> SEQUENCE: 6			
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231 cctcatactg cttctccag gtgccgtgga gtctcataca	gcagtgcagg ggctggcg	120	
232 tcaccctgtc acactccat gtatttattc gacacac	cctt ggttgcatttgc ttcttatgt	180	
233 ttggggccta gggatgcc gccattctta ttgtatacgg	tcacttatct ggaccaatgg	240	
234 atatacggtc acacatcaga gaaacagtgc ataccagct	aaggggaaa tttcagaagg	300	
235 aaatgtgtcc ttgaccatag agaacactgt ttttgtat	gggttgcctt attgtgtgt	360	
236 agtggagata cctggagcgt tccatttgt ggactatatg	tttggaaatgg aaccagaaat	420	
237 ttccacgagt ccaccaacaa gcccacacg tacaggaaga	ccacacaacta tttcaacaag	480	
238 atcccacatgt accaaacat caaccagat ctctacatct	acttctccaa caccagcaca	540	
239 cacagagacc tacaaaccag aggccactac atttatcca	gatcagacta cagctgagg	600	
240 gacagaaacc ttaccctcta ctcctgcaga ctggcataac	actgtgacat cctcagatga	660	
241 cccttggat gataacactg aagtaatccc tccacagaag	ccacagaaaa acctgaataa	720	
242 gggcttctat gttggcatct ccattgcagc cctgctgata	tttgcatttgc ttgatgc	780	
243 ggttatcacc aggtacgtgg ttatgaaaag gaagtcagaa	tctctgagct ttgttgc	840	
244 ccctatctct aagattggag cttcccccaa aaaagtggc	gaacggacca gatgtgaaga	900	
245 ccaggctac attatgtaa acactccctta ccctgaagaa	gagtcctagt gcctctac	958	
247 <210> SEQ ID NO: 7			
248 <211> LENGTH: 305			
249 <212> TYPE: PRT			
250 <213> ORGANISM: Mus musculus			
252 <220> FEATURE:			
253 <221> NAME/KEY: VARIANT			
254 <222> LOCATION: (1)...(305)			
255 <223> OTHER INFORMATION: TIM-2, C.D2 ES-HBA and DBA/2J allele			
257 <400> SEQUENCE: 7			
258 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Pro			
259 1	5	10	15
260 Gly Ala Val Glu Ser His Thr Ala Val Gln Gly Leu Ala Gly His Pro			
261	20	25	30
262 Val Thr Leu Pro Cys Ile Tyr Ser Thr His Leu Gly Gly Ile Val Pro			
263	35	40	45
264 Met Cys Trp Gly Leu Gly Glu Cys Arg His Ser Tyr Cys Ile Arg Ser			
265	50	55	60
266 Leu Ile Trp Thr Asn Gly Tyr Thr Val Thr His Gln Arg Asn Ser Arg			
267 65	70	75	80

**VERIFICATION SUMMARY**

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DATE: 03/17/2006

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Output Set: N:\CRF4\03172006\J663497A.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date